Indiana State Department of Health
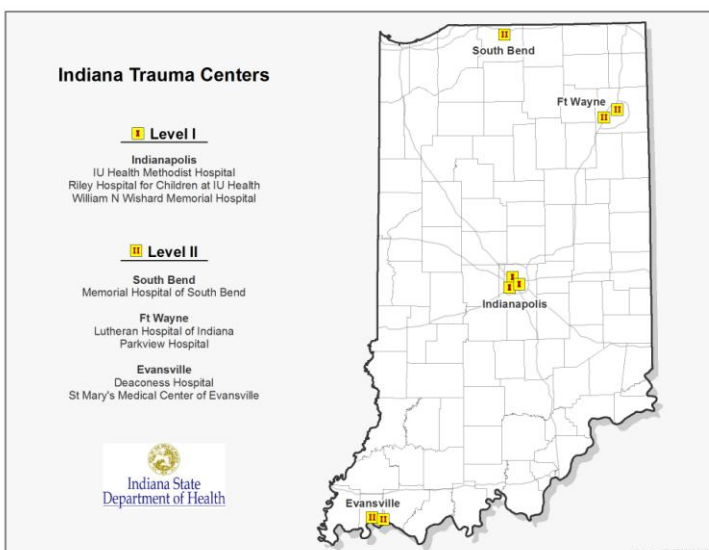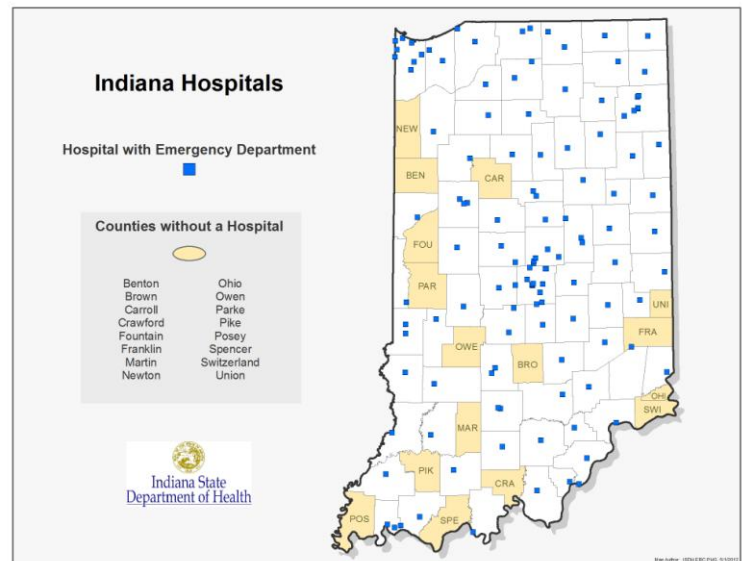
Indiana Trauma Registry

Annual Report

October 1, 2011 – September 30, 2012

Indiana Trauma Registry Annual Report 2012

Injury is the leading cause of death for those under 45 years of age nationwide. In 2009 more than 32,000 Hoosiers were hospitalized from injuries, and more than 3,700 died from those injuries (the last year for which complete data is available). Traumatic injuries tend to impact multiple systems in the body and are more severe than regular injuries. The impact of traumatic injuries is multi-dimensional: loss of productivity, loss of wages, hospital expenses, potential loss of employment, etc. The ideal place for a traumatically injured person to be cared for is in a trauma center – a hospital that is equipped to provide comprehensive emergency medical services that exceed the scope of most emergencies.

Indiana currently does not have an integrated trauma system. There are 123 acute care hospitals in Indiana with Emergency Departments (EDs) – this number does not include rehabilitation hospitals, long-term care facilities, or psychiatric hospitals. There are 8 trauma centers in Indiana that contribute 86% of the data in the trauma registry.

A trauma registry is a collection of data about patients who receive hospital care for the most serious injuries. A statewide trauma registry is the backbone of any successful trauma system because it provides the data needed for performance improvement and better patient outcomes. The state collects data based on the National Trauma Data Standards (NTDS), but it has the ability to capture additional elements.

The Indiana State Department of Health purchased a web-based trauma registry program from ImageTrend in 2007 that is made available to all hospitals in the state at no charge. The registry maintenance and upgrades are performed by ImageTrend on an ongoing basis. The registry itself is hosted on an Indiana Office of Technology (IOT) server. The software utilizes Hypertext Transfer Protocol Secure (HTTPS) to present a web-based interface that allows for secure transfer of data from the hospital to the trauma registry. This ensures the system meets the security and software requirements of the IOT.
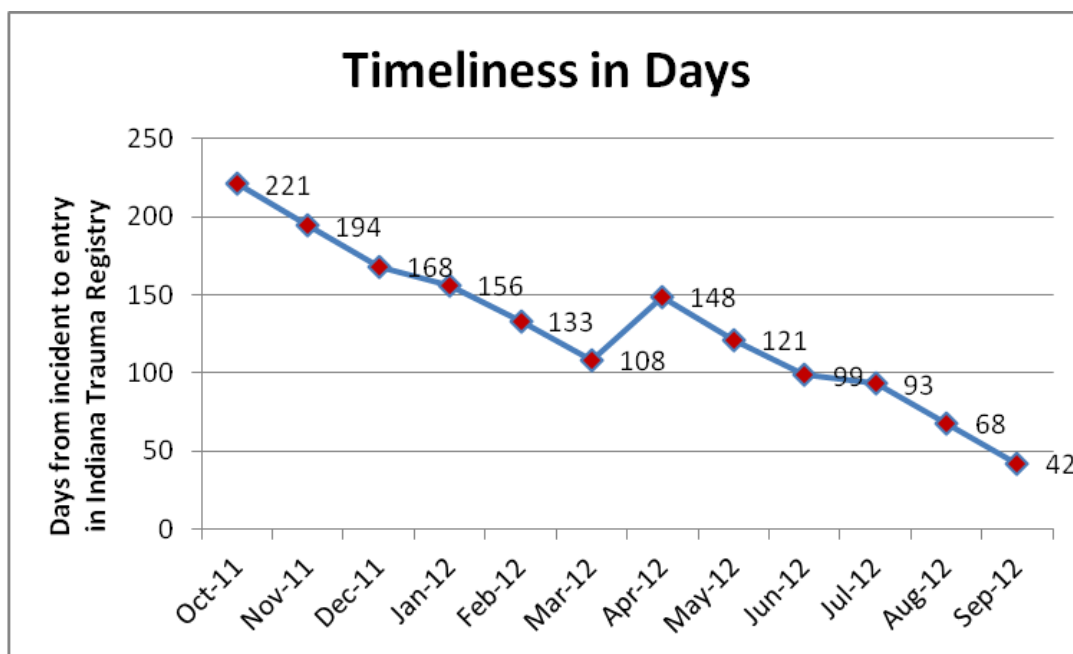
Senate enrolled act 366 (2011) requires hospitals to report external cause of injury codes (E-codes) beginning Oct. 1, 2013. The reporting of E-codes provides an understanding of how patients are injured, which helps with injury surveillance efforts as well as understanding how to best create an effective injury prevention program. The specific push for reporting E-codes is to allow for better identification of how specific causes of injury impact patient care across the state.

The Indiana trauma registry had three goals during the 2011-2012 grant year; improve timeliness of reports to the Indiana trauma registry, increase completeness of hospitals reporting, increase usage of E-codes. Before the grant year, trauma center, which provide the majority of data to the trauma registry, reported data to the state on an annual basis. Beginning in June 2012, all hospitals with their own registry began submitting data on a quarterly basis. This change has had a dramatic effect on timeliness.

Goal #1: Improve timeliness of data submission to the state registry

The first of three goals of fiscal year 2012 was to improve timeliness of data submission to the state registry. Timeliness was improved by working with the trauma centers to develop a quarterly reporting schedule.

- **Objective:** All contributing hospitals will submit data to the registry within 90 days after a trauma patient is released from the hospital or 90 days after a trauma patient is released from rehabilitation.

- **Result:**

- From October 2011 to September 2012, average timeliness was 147 days.

- The lower the number of days from the initial incident until inclusion into the Indiana Trauma Registry improves timeliness and allows for more timely action on data.

- Note: Last 3 months of 2012 (July, August, September) are artificially low as most trauma centers have yet to report data.

- Note: Rehab information is not available at this time.

Goal #2: Expand the Indiana Trauma Registry to include all acute care Indiana hospitals:

The second of three goals was to increase the number of Indiana hospitals reporting trauma data to the registry. Recruitment of hospitals to submit data was accomplished through communications from the Indiana State Department of Health (ISDH) and the support of current registry users.

- **Objective:** Continue to recruit additional non-trauma center hospitals to submit data to the trauma registry.
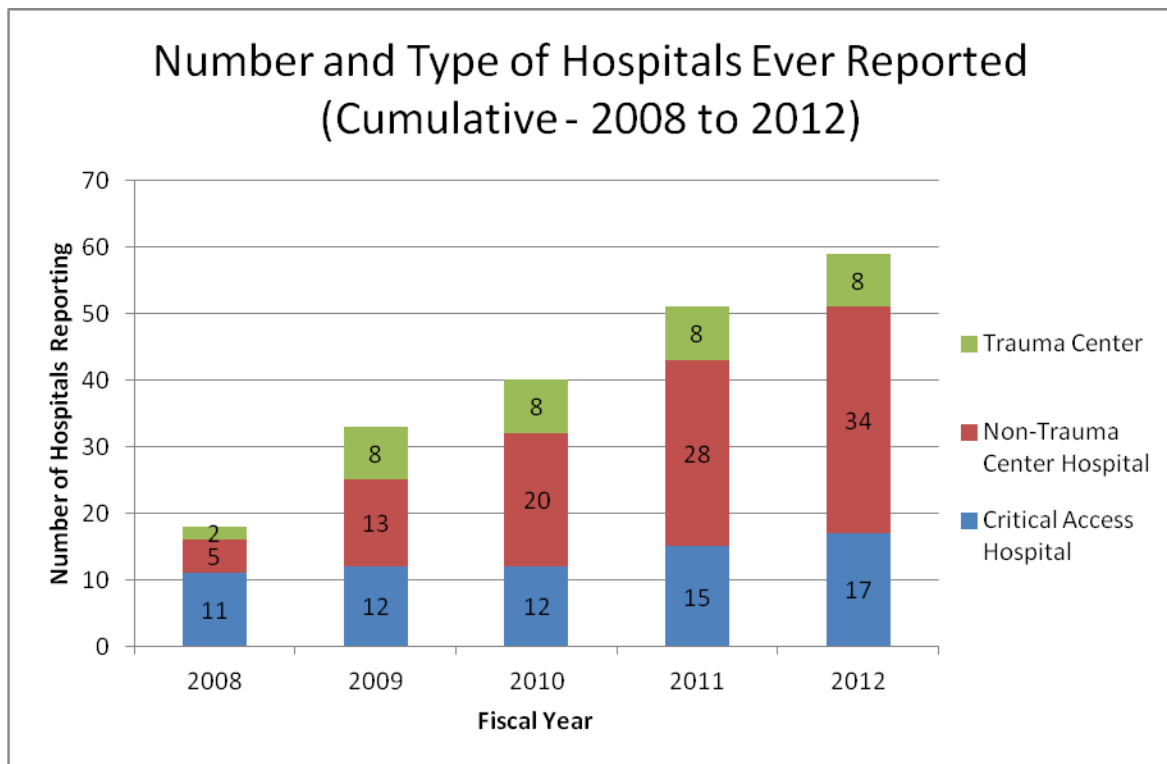
- **Result:**

6 Non-Trauma Center Hospitals Trained (10/01/2011 to 09/30/2012)	
Major Hospital	Parkview Noble Hospital
Parkview Huntington Hospital	Parkview Whitley Hospital
Parkview LaGrange Hospital	St. Vincent Hospital - Indianapolis

8 Non-Trauma Center Hospitals Retrained (10/01/2011 to 09/30/2012)	
Community Hospital of Bremen	Franciscan St. Elizabeth - Central
Dukes Memorial Hospital	IU Health - La Porte Hospital
Floyd Memorial Hospital	Methodist Northlake Campus
Franciscan St. Elizabeth - East	Terre Haute Regional Hospital

- **Objective:** By September 30, 2012, the number of hospitals ever reported to the registry will increase to 70 hospitals reporting.

- **Result:** 57 hospitals (see next page for list of hospitals ever reported).

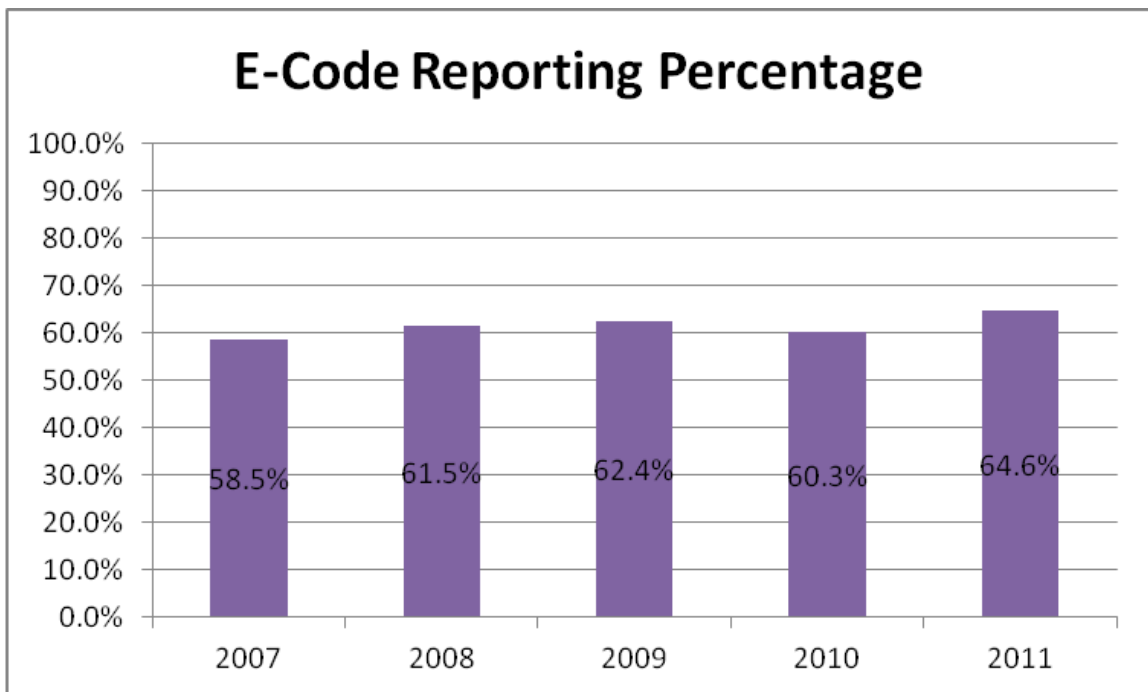| List of hospitals that have ever reported to the Indiana Trauma Registry	
CLARK MEMORIAL HOSPITAL	LUTHERAN HOSPITAL OF INDIANA
COMMUNITY HEALTH NETWORK COMM HOSP NORTH	MAJOR HOSPITAL
COMMUNITY HOSPITAL OF BREMEN, INC	MEMORIAL HOSPITAL & HEALTH CARE CENTER
DAVIESS COMMUNITY HOSPITAL	MEMORIAL HOSPITAL SOUTH BEND
DEACONESS HOSPITAL	METHODIST HOSPITALS INC NORTHLAKE CAMPUS
DUKES MEMORIAL HOSPITAL	PARKVIEW HUNTINGTON HOSPITAL
ELKHART GENERAL HOSPITAL	PARKVIEW LAGRANGE HOSPITAL
FLOYD MEMORIAL HOSPITAL	PARKVIEW NOBLE HOSPITAL
FRANC ST ELIZ HEALTH - LAFAYETTE EAST	PARKVIEW REGIONAL MEDICAL CENTER
FRANC ST ELIZ HEALTH-LAFAYETTE CENTRAL	PARKVIEW WHITLEY HOSPITAL
GIBSON GENERAL HOSPITAL	PULASKI MEMORIAL HOSPITAL
GREENE COUNTY GENERAL HOSPITAL	REHABILITATION HOSPITAL OF INDIANA
HARRISON COUNTY HOSPITAL	REID HOSPITAL & HEALTH CARE SERVICES, INC
HENDRICKS REGIONAL HEALTH	RUSH MEMORIAL HOSPITAL
IU HEALTH - ARNETT HOSPITAL	SCHNECK MEDICAL CENTER
IU HEALTH - BALL MEMORIAL HOSPITAL	ST JOHN'S HEALTH SYSTEM
IU HEALTH - BEDFORD HOSPITAL	ST MARY'S MEDICAL CENTER
IU HEALTH - BLACKFORD HOSPITAL	ST MARY'S WARRICK HOSPITAL
IU HEALTH - BLOOMINGTON HOSPITAL	ST VINCENT DUNN HOSPITAL
IU HEALTH - LA PORTE HOSPITAL	ST VINCENT INDIANAPOLIS HOSPITAL
IU HEALTH - METHODIST HOSPITAL	ST VINCENT SALEM HOSPITAL
IU HEALTH - PAOLI HOSPITAL	SULLIVAN COUNTY COMMUNITY HOSPITAL
IU HEALTH - RILEY HOSPITAL FOR CHILDREN	TERRE HAUTE REGIONAL HOSPITAL
IU HEALTH - TIPTON HOSPITAL	UNION HOSPITAL CLINTON
IU HEALTH - WHITE MEMORIAL HOSPITAL	UNION HOSPITAL, INC
JAY COUNTY HOSPITAL	WISHARD HEALTH SERVICES
JOHNSON MEMORIAL HOSPITAL	WITHAM HEALTH SERVICES
KING'S DAUGHTERS' HOSP & HEALTH SERVICES	WOODLAWN HOSPITAL
KOSCIUSKO COMMUNITY HOSPITAL	

# of incidents reported between 10/01/11 to 09/30/12	
Trauma Centers	
DEACONESS HOSPITAL	2203
IU HEALTH - METHODIST HOSPITAL	5421
IU HEALTH - RILEY HOSPITAL FOR CHILDREN	731
LUTHERAN HOSPITAL OF INDIANA	706
MEMORIAL HOSPITAL SOUTH BEND	1642
PARKVIEW REGIONAL MEDICAL CENTER	2350
ST MARY'S MEDICAL CENTER	2481
WISHARD HEALTH SERVICES	2023
Non -Trauma Hospitals	
COMMUNITY HOSPITAL OF BREMEN, INC	13
DUKES MEMORIAL HOSPITAL	73
FRANC ST ELIZ HEALTH - LAFAYETTE EAST	180
FRANC ST ELIZ HEALTH-LAFAYETTE CENTRAL	21
HENDRICKS REGIONAL HEALTH	14
IU HEALTH - BALL MEMORIAL HOSPITAL	100
IU HEALTH - BEDFORD HOSPITAL	41
IU HEALTH - BLOOMINGTON HOSPITAL	458
IU HEALTH - LA PORTE HOSPITAL	1
IU HEALTH - WHITE MEMORIAL HOSPITAL	110
JOHNSON MEMORIAL HOSPITAL	143
KOSCIUSKO COMMUNITY HOSPITAL	23
MAJOR HOSPITAL	6
MEMORIAL HOSPITAL & HEALTH CARE CENTER	382
METHODIST HOSPITALS INC NORTHLAKE CAMPUS	34
PARKVIEW HUNTINGTON HOSPITAL	45
PARKVIEW LAGRANGE HOSPITAL	12
PARKVIEW NOBLE HOSPITAL	27
PARKVIEW WHITLEY HOSPITAL	20
PULASKI MEMORIAL HOSPITAL	38
REID HOSPITAL & HEALTH CARE SERVICES, INC	12
SCHNECK MEDICAL CENTER	18
ST JOHN'S HEALTH SYSTEM	16
ST VINCENT INDIANAPOLIS HOSPITAL	3646
SULLIVAN COUNTY COMMUNITY HOSPITAL	18
TERRE HAUTE REGIONAL HOSPITAL	351
UNION HOSPITAL CLINTON	66
UNION HOSPITAL, INC	1
GRAND TOTAL	
	_**23,426**_

Number and Type of Hospitals Ever Reported (Cumulative - 2008 to 2012)

Goal #3: Increase usage of External Cause of Injury, or E-code usage by all hospitals in Indiana

The third and final goal was to improve hospital records by increasing the percentage of records with E-codes. The focus this year was surveying multiple groups on a variety of topics regarding E-codes. This helped determine what training is needed to improve E-code reporting.
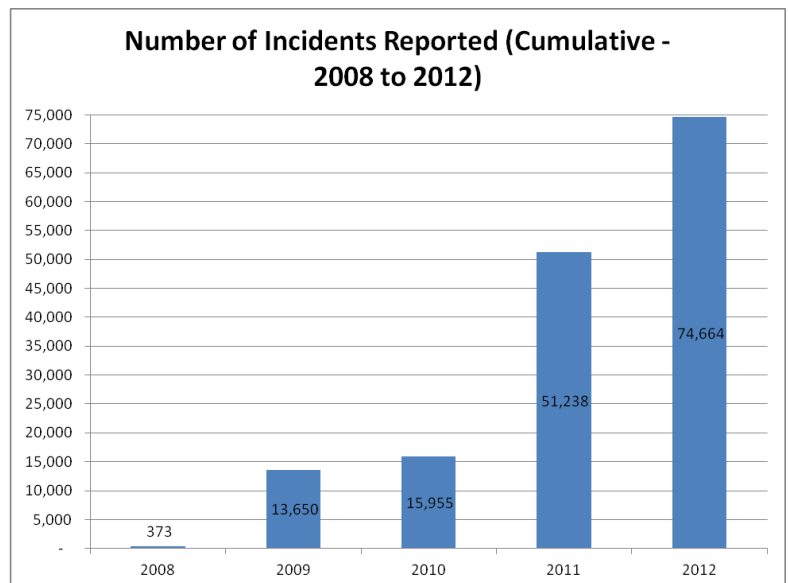
- **Objective:** Improve the completeness of the injury prevention surveillance system by demonstrating a measured increase in the percentage of hospital discharge records associated with E-codes from 67% to 78% by September 30, 2012.

- **Result:**

    o Based on hospital discharge data for 2011, 64.6% of injury-related records had E-codes.

    o Note: There were 18 diagnosis fields in the data sets between the years of 2007 to 2010. ISDH worked with the Indiana hospital association to increase the number of fields to 60 for the 2011 data set.

E-Code Reporting Percentage

Closing Remarks

The Indiana trauma registry (ITR) is committed to improvement of data quality. ITR uses the National Highway Traffic Safety Administration standard for data quality measures. As was mentioned in this report, the ITR focus this year was on timeliness and completeness of data. In the upcoming grant year we are continuing our focus on timeliness and completeness. Additionally, we will focus on uniformity through an inter-rater reliability testing of the coders who submit data to the ITR.

The Division of Trauma and Injury Prevention is working with the Indiana Criminal Justice Institute to create the basic building blocks for an injury surveillance system. The reporting of E-codes, which indicates the cause of injury, is an important part of this effort. Diagnosing injury is important, but understanding how those injuries occur is foundational to an injury surveillance system. Further, the reporting of E-codes will also help to improve injury prevention efforts across the state.

Number of Incidents Reported (Cumulative - 2008 to 2012)

In the coming grant year, the Division of Trauma and Injury Prevention has set many goals to improve the statewide trauma system. The improvement of the statewide trauma system is heavily dependent upon data:

- Data helps stakeholders understand their patients.

- Data identifies and pushes process improvement efforts.

- Data collected by the trauma registry drives good decision making processes.

- Data improves patient outcomes.

The Indiana Trauma Registry will continue its efforts to collect more and better data regarding the incidence of trauma in Indiana so that Hoosiers and visitors to Indiana are safe from injury but when the unfortunate traumatic event occurs, the statewide trauma system responds well and world class care is provided.